Objectives: Hypertension has been established as a major public health problem in Africa, but its specific contributions to disease burden are still incompletely understood. We quantified the burden and determinants of hypertension, detection, treatment and control rates among adults in major cities in Cameroon.

Patients and methods: This was a cross-sectional and community-based multicenter study in major cities in Cameroon. Participants were self-selected urban dwellers from the Center, Littoral, North-West and West Regions, who attended on May 17th 2011 a screening campaign advertised through mass media. Primary outcome measure was hypertension defined as systolic (and/or diastolic) blood pressure ≥140 (90) mmHg, or ongoing blood pressure (BP) lowering medications.

Results: In all, 2120 participants (1003 women) were included. Among them, 1007 (prevalence rate 47.5%) had hypertension, including 319 (awareness rate 31.7%) who were aware of their status. The prevalence of hypertension increased with age overall and by sex and region. Among aware hypertensive subjects, 191 (treatment rate 59.9%) were on regular BP lowering medication, and among those treated, 47 (controlled rate 24.6%) were at target BP levels (i.e. systolic (and diastolic) BP <140 (90) mmHg). In multivariable logistic regressions analysis, male gender, advanced age, parental history of hypertension, diabetes mellitus, elevated waist, and elevated body mass index (BMI) were the significant predictors of hypertension. Likewise, male gender, high BMI and physical inactivity were associated with poor control.

Conclusions: High prevalence of hypertension with low awareness, treatment and control were found in this urban population; these findings are significant and alarming with consideration to the various improvements in the access to healthcare and the continuing efforts to educate communities over the past decades.

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Control of hypertension in a large population of Blida, Algeria

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Objective: We are presenting the main results of the study regarding the hypertension control rate in a large sample of hypertensive patients at cardiology center of Blida. Algeria

Methods: In the cross-sectional questionnaire-based observational study we have included 1184 hypertensive patients (56.3% females, mean age 54.0±11.1 years) attending a routine visit in specialist care. To be included patients had to be ≥20 years old and had to be treated for at least 12 months with antihypertensive drugs. Blood pressure (BP) was measured twice in a seated position according to ESH/ESC guidelines and mean value was calculated. The controlled hypertension was defined as BP level below 140/90 mmHg. Selected demographical and clinical data were evaluated.

Results: Among studied patients hypertension control rate was 36.7%. There were no significant differences in control rates between primary care and specialist care patients and between men and women. Patients with obesity (BMI ≥30 kg/m^2) or abdominal obesity (ESH/ESC 2007 criteria) had lower rates of controlled hypertension as compared with patients without obesity or abdominal obesity (47,3% vs 52,1%, p <0,01 et 46,2% vs 51,7%, p <0,001 respectively). Patients with diabetes as well as patients with coronary artery disease (CAD) or cerebrovascular disease (CVD) had lower hypertension control rates in comparison with patients without these diseases (32,6% vs 38,9%; p <0,001, 25,3% vs 29,1%,p <0,001 and 23,8% vs 36,2%; p= 0,03 for diabetes, CAD and CVD respectively).

Conclusion: Our results showed that 36.7% of hypertensive patients treated for at least 1 year achieved blood pressure control. Patients at higher cardiovascular risk (established cardiovascular disease, diabetes or obesity) had lower BP control rates.

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Peripheral artery disease and description of risk factors profile in ambulatory patients with metabolic syndrome

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Purpose: The metabolic syndrome, a cluster of cardiovascular risk factors associated with insulin resistence and obesity has been associated with an increase in incidence of coronary artery disease, stroke and cardiovascular mortality. Less data are available on the relationship between the metabolic syndrome and incident lower extremity peripheral artery disease. Our aim is to evaluate the prevalence of peripheral artery disease (PAD) in ambulatory patients aged 45-65 years with metabolic syndrome (MS).

Methods: We included in our study 400 ambulatory patients (200 men and 200 women) who fulfilled criteria of metabolic syndrome. The diagnosis of PAD was establighed if ankle-brachial index (ABI) was < 0.9. We analyzed risk factors profile in these patients: body mass index (BMI), physical inactivity, smoking, hypertension, dyslipidemia, abnormal glucose metabolism and subclinical inflammatory status.

Results: Smoking was found in 38% of males and 21% of females. Among these patients with MS, an HDL-Chol < 50 mg/dl was the most prevalent MS trait: 87% in males and 83% in females. This trait was followed by elevated BMI in 80% of males and 84% of females. Also, elevated blood pressure was found in 79% of males and 75% of females. Elevated triglycerides were present in 80% of males and 74% of females. Dysglycemia was found in 29% of males and 24% of females.

Among patients with metabolic syndrome, the prevalence of PAD was of 12% in males and 6% in females, correlated with smoking (87.5% in males and 91.66% in females with PAD), physical inactivity (79.16% in males and 91.66% in females), dysglycemia (75% in males and 83.33% in females), age (66.66% in males aged >55 years and 83.33% in females aged >55 years, total cholesterol (79.16% in males and 83.33% in females) and high hs-CRP (70.83% in males and 75% in females).

Conclusion: MS is associated with a risk of PAD, an important role playing smoking, dysglycemia, dyslypidemia and subclinical inflammation.

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Relation between pulse pressure and vascular event among the elderly in Monastir: a population-based study

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Background: The sixth Joint National Committee (JNC-VI) classification system of blood pressure emphasizes both systolic blood pressure (SBP) and diastolic blood pressure (DBP) for cardiovascular disease risk assessment. Pulse pressure (PP)=[SBP – DBP], may also be a valuable risk assessment tool.

Objectives: In this study, we examined the association of cardiovascular events with arterial pulse pressure in elderly as well as their correlations within diabetes.

Patients and methods: A Population based survey supported by WHO and FNUAP, was undertaken in 2008-2009 to investigate health behaviours and health status of elderly living in their home in Monastir. This study was carried out in a representative sample of elderly aged more than 65 years. Standardized techniques were used for blood pressure (BP). Hypertension was defined as BP more than 140/90 mmHg. Diabetes was defined as known diabetics. Regression analyses were used to examine the relationships among pulse pressure age, diabetes and cardiovascular events (myocardial infarction, arteritis and stroke) This project was approved by the research Ethics Committee, CHU F Bourguiba, university of Monastir

Results: The study included 598 participants (396 women and 202 men) who were aged ≥65 years.

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